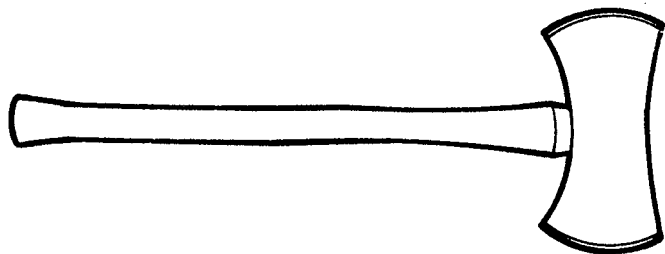


Chapter 45 CHOPPING TOOLS

HOW TO CHOOSE AND USE THEM

The “Types and Uses” section provides you with a list of some of the types of chopping tools. These pages should help you select the right chopping tool to do the job.

The “Using” section tells you how to use chopping tools to perform the desired function. The “Care” procedures tell you how to care for the item.



INDEX

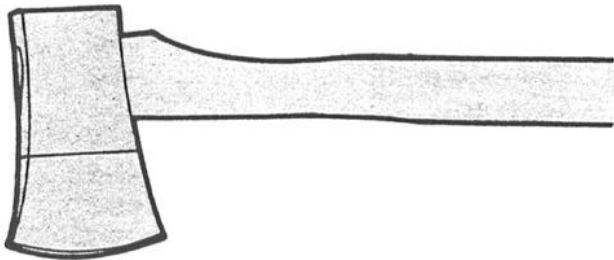
<i>Item</i>	<i>Page</i>
TYPES AND USES	45-2
Single-bit ax	45-2
Double-bit ax	45-2
Crash ax	45-2
HATCHETS	45-2
Half-hatchet	45-2
ADZ	45-3
TIMBER WEDGE	45-3
SAFETY	45-3
USING	45-4
CARE	45-7

TYPES AND USES

AXES

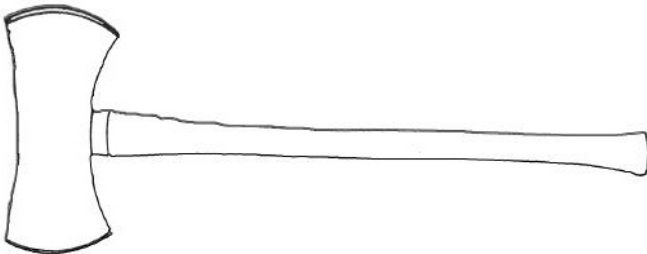
Axes are cutting tools used for the cutting down of trees and for the chopping and splitting of wood. They may be either single or double-edged. Single-bit, double-bit, and crash axes are the most common types. Sizes of axes vary depending upon their design and purpose.

SINGLE-BIT AX



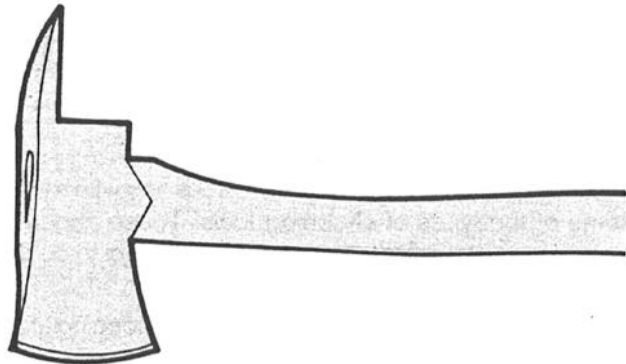
The single-bit ax is used to cut down or prune trees. It can also be used to cut or trim logs and heavy brush, or to split and cut wood. This type ax has a steel head attached by wedges to a long, slightly curved handle. The head has a flat face at one end. At the other end is the cutting edge or "bit."

DOUBLE-BIT AX



The double-bit ax is used for the chopping down and the lopping and topping of trees. The double-bit ax has a wedge-type head with two cutting edges.

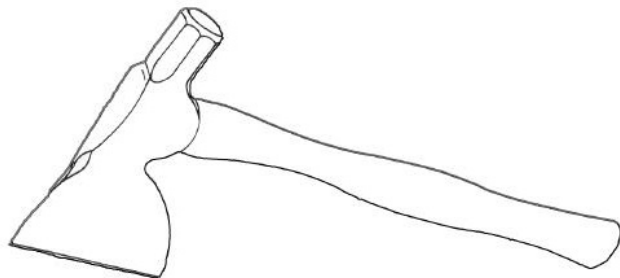
CRASH AX



The crash ax, or fireman's ax, is used by emergency personnel to gain quick access to a given area. This ax has a steel head with a cutting blade or bit at one end, and a spike-like extension at the other.

HATCHETS

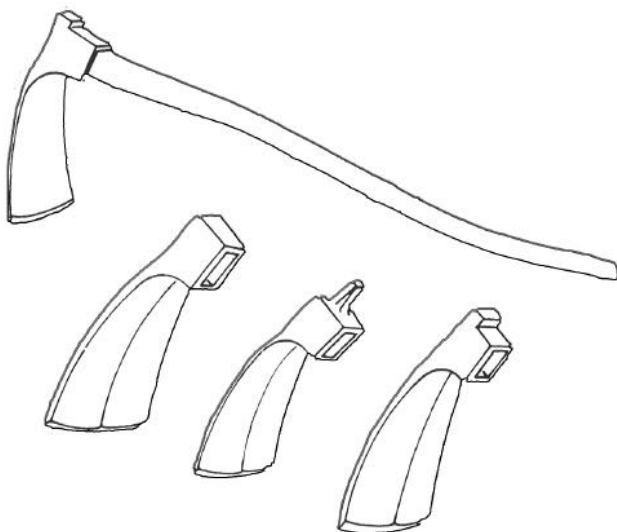
HALF-HATCHET



The half-hatchet, commonly called a hatchet, has a steel head fastened by wedges to a short wooden handle. The head always has a straight front edge and a round rear shoulder. The other end of the head may vary in shape depending on the design and use.

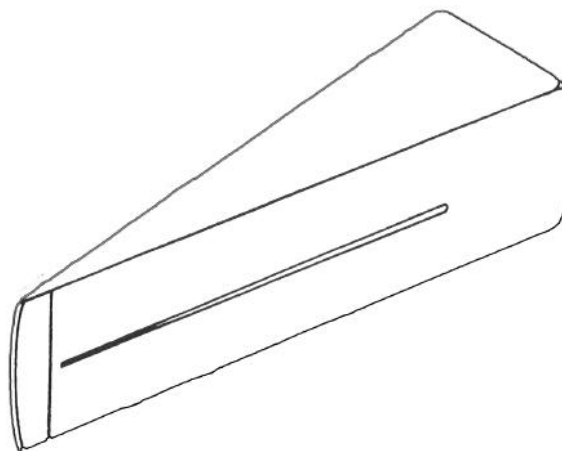
TYPES AND USES - Continued

ADZ



The adz is a chopping tool used for chopping and smoothing lumber or logs where a great deal of wood or bark is to be removed. The adz is a form of ax where the edge of the blade is at a right angle to the handle. It has a curved steel head attached to a curved handle.

TIMBER WEDGES

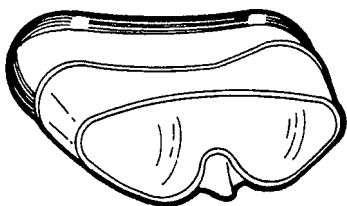


The timber wedge is used with a sledge, primarily to split logs and timber. When sawing timber or thick lumber, it may also be used to spread the cut so the saw will not bind. The timber wedge is a steel tool resembling a slender single-bit ax head. One end is slightly fan-shaped and sharpened to a dull edge. The other end is flat where a sledge can strike when driving the wedge into a log.

SAFETY

1. Never use any tool that is defective.
2. Always wear eye protection when working where flying particles may injure the eyes.
3. Do not use dull or defective tools.
4. Before swinging a tool, be sure no one is close enough to be injured.
5. Do not use a tool not designed for the job. It can be dangerous.
6. Before using an ax, clean the work area of material that might deflect the ax blade.
7. Keep arms, legs, and feet out of path of ax.

USING THE SINGLE-BIT AX



WARNING

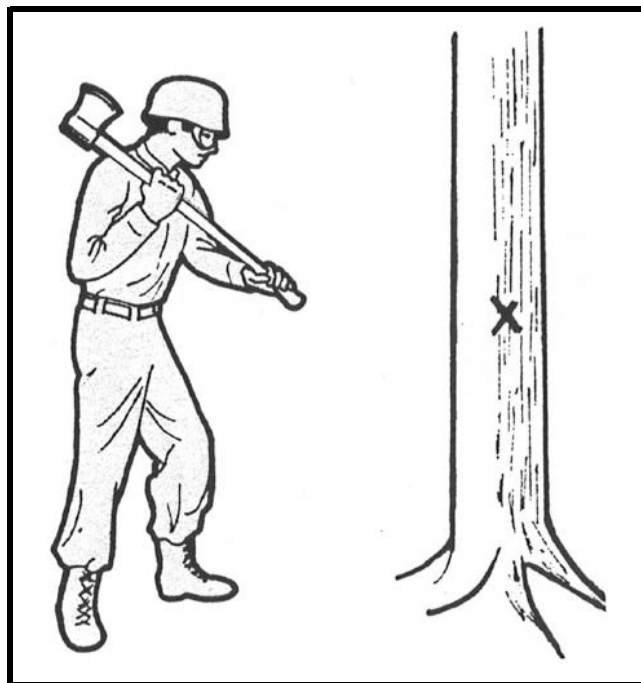
ALWAYS WEAR SUITABLE EYE PROTECTION.



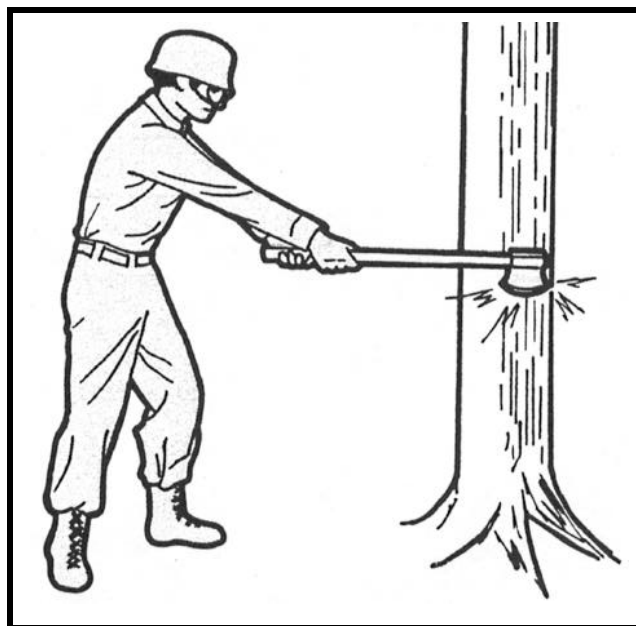
- 1 First clear the work area of material that might deflect the ax blade. The user's body weight should be evenly distributed, with knees set, but not tense. The feet should be spread at a comfortable distance to retain balance, while the body should be relaxed and free to swing and bend at the waist.
- 2 To use the ax, grasp the ax handle with both hands close together near the end of the handle, with the right or leading hand closer to the ax head. The left foot should be closer to the work.

NOTE

Reverse the position of the hands, feet and shoulder if left-handed.

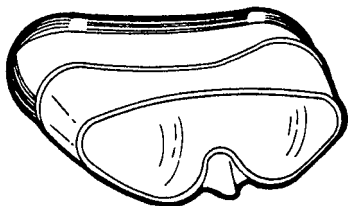


- 3 To start the swing, bring the ax back over the right shoulder, bending the elbow as the right hand slides up the handle toward the ax head.



- 4 On the downswing, let the right hand slide down the handle, toward the left hand.
- 5 At the end of the downswing, the right hand will be beside the left hand at the end of the handle.

USING THE ADZ



WARNING
ALWAYS WEAR SUITABLE EYE
PROTECTION.

- 1 To use the adz, first clear the work area of branches and debris.



- 2 Block the timber to be worked on so it cannot slip, slide, or roll.
- 3 Straddle the timber and grip the adz handle with both hands. The right hand should be held approximately 12 to 15 inches above the left hand.



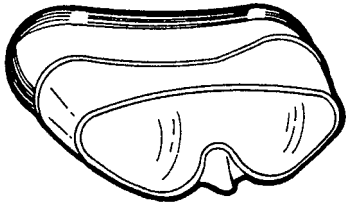
- 4 Use short, choppy down strokes while keeping the hands in approximately the same position on the handle. The right hand does not slide toward the left hand as in swinging the ax, because the right hand must be in a position to keep control of the adz head at all times. Sliding the right hand to the end of the handle would allow the adz blade face to be deflected toward the user.

NOTE

As wood chips accumulate on the work surface, clear them away to prevent their causing a deflection of the adz blade.

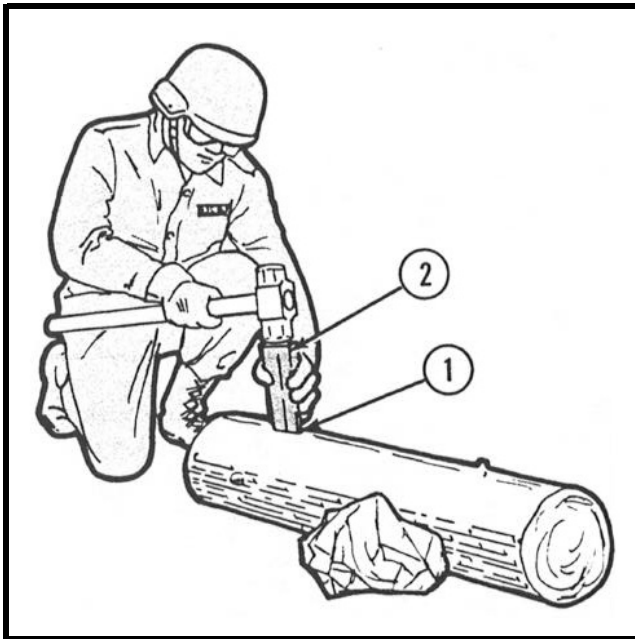
Reverse the position of the hands if left-handed.

USING THE TIMBER WEDGE



WARNING

BEFORE USING ALWAYS WEAR SUITABLE EYE PROTECTION.

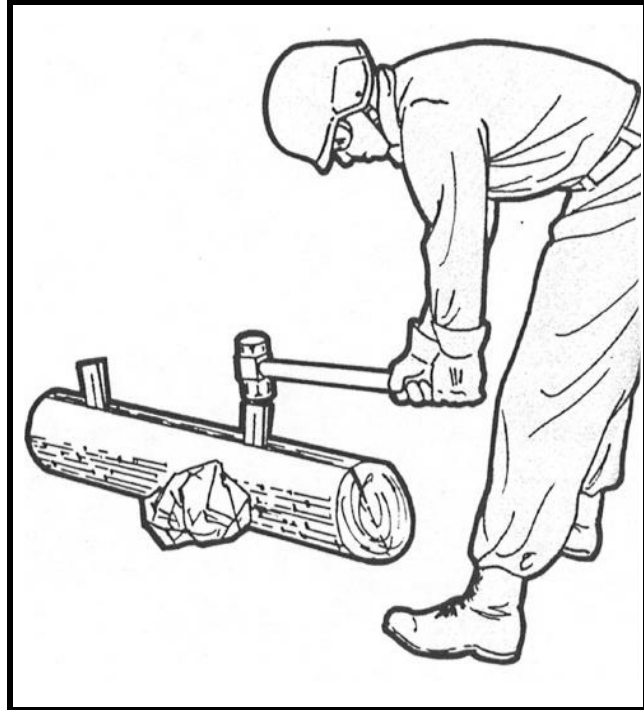


- 1 To use the timber wedge, first block the log to be split, or steady it so it cannot roll.
- 2 With the left hand, hold the wedge's narrow edge (1) on the log where a split is desired.

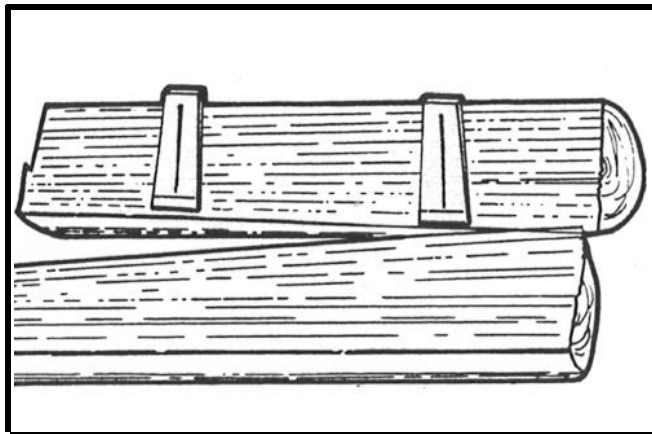
CAUTION

Do not use a timber wedge that has nicks or burrs, since the rough sections can scratch the hands or can cause chips to break off when struck by sledge.

- 3 Hold the sledge handle in the right hand, close to its head, and start driving the wedge (2) into the log with a pounding action.



- 4 Give the wedge a few blows, then start a second wedge on the line farther along the log and drive it with a few sledge blows.



- 5 Alternate driving the wedges into the log until log splits. For longer logs, more than two wedges should be used.

NOTE

Reverse the position of the hands if left-handed.

CARE OF CHOPPING TOOLS

1. Clean all chopping tools after use.
2. Store tools to protect heads and cutting edges.
3. For prolonged storage, keep tools free of rust by wiping with oil.
4. In very cold weather, never use a chopping tool before the blade is warm. A cold blade is brittle and will break easily.

WARNING

LINSEED OIL IS A FLAMMABLE LIQUID. TO AVOID PERSONAL INJURY, PROPERLY DISPOSE OF ALL CLEANING RAGS IN NON-COMBUSTIBLE CONTAINERS.

5. Promptly replace wooden handles on all chopping tools when needed. When changing handles, apply a light coating of linseed oil.

